

PATENT  
Atty. Dkt. No. AVAN/001104

## REMARKS

This is intended as a full and complete response to the Office Action dated July 11, 2007, having a shortened statutory period for response set to expire on October 11, 2007. Claims 1-6, 8, and 15 have been examined. The Examiner objected to claims 1, 4, 5, and 6 due to informalities. The Examiner rejected claims 1-6, 8, and 15 under 35 U.S.C. § 103(a) as being obvious over Shin ("A novel optical signal-noise ratio monitoring technique for WDM networks," Shin, et al., Optical Fiber Communication Conference, 2000; Volume 2, 7-10 March 2000, pages 182-184) in view of Ames (U.S. Patent No. 6,661,817).

### Statement of Substance of Interview

On October 11, 2007, a telephonic interview was held between Walter C. Grollitsch and the Examiner. The parties discussed the cited references Shin and Ames. Claims 1, 3, and 15 were also discussed.

The arguments and amendments herein are presented in accordance with the substance of the interview to place the application in better condition for allowance.

### Claim Objections

The Examiner objected to claims 1, 4, 5, and 6 due to informalities. In response, Applicants have amended claims 1, 4, 5, and 6 accordingly. Therefore, Applicants respectfully request the objection of claims 1, 4, 5, and 6 be removed.

### Claim Rejections Under 35 U.S.C. § 103

The Examiner rejected claims 1-6, 8, and 15 under 35 U.S.C. § 103(a) as being obvious over Shin ("A novel optical signal-noise ratio monitoring technique for WDM networks," Shin, et al., Optical Fiber Communication Conference, 2000; Volume 2, 7-10 March 2000, pages 182-184) in view of Ames (U.S. Patent No. 6,661,817). In response, Applicants have amended the claims.

As amended, independent claims 1 and 15 include the limitation of sampling at least 1024 points in the digital signal continuously at a frequency. As amended, independent claim 7 includes the limitation of sampling a plurality of points in the digital signal for a predetermined

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amount of time. As admitted by the Examiner, Shin fails to disclose the step of sampling a plurality of points from a digitized version of the tapped signal and therefore the Examiner relies on Ames to teach this limitation. However, Ames fails to teach the limitations in the amended claims. Ames merely teaches that data points can be taken from a voltage  $V_{MON}$  36 derived from  $I_{MON}$  28 at various current levels (see Ames, col. 6, lines 23-25). Further, Ames teaches that a host 38 may sample voltage  $V_{MON}$  36 representing the average optical power 24 to calculate the average power 24 coming out of a laser diode 14 (see Ames, col. 6, lines 35-40). In other words, Ames fails to disclose that 1024 data points are sampled and that the data points are sampled for a predetermined amount of time.

As the foregoing illustrates, the combination of Shin and Ames fails to render claims 1-6, 8, and 15 obvious. Therefore, Applicants respectfully request the 103(a) rejection of claims 1-6, 8, and 15 be removed and the allowance of the same.

#### New Claims

New claims 16-18 has been added to claim aspects of the present invention. Applicants submit that no new subject matter has been added. Claims 16-17 depend from claim 5 and these claims should be allowable for at least the same reasons as claim 5. Additionally, Applicants believe that the combination of Shin and Ames fails to disclose a method of utilizing performance monitor cells to monitor a multiplexer, comprising the steps of tapping a portion of a signal from a first channel in the multiplexer by utilizing a first performance monitor, wherein the first optical performance monitor comprises a first coupler, a first photodiode and a first amplifier, tapping a portion of a signal from a second channel in the multiplexer by utilizing a second performance monitor, wherein the second optical performance monitor comprises a second coupler, a second photodiode and a second amplifier, sending a signal generated by the first amplifier and sending a signal generated by the second amplifier to a analog-to-digital converter, converting the signal generated by each amplifier from an analog signal to a digital signal by utilizing the analog-to-digital converter and sending each digitized signal to a digital signal processor to calculate a channel power value and subsequently report an optical to noise ratio, as recited in claim 18. Therefore, Applicants believe that new claims 16-18 are in condition for allowance and respectfully request the same.